

Application No. 09/815,646  
Art Unit 3626

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### Claim Listing

Claims 1-7 (canceled)

Claim 8 (amended): A method for determining an overall level of confidence for medical clinical conclusion comprising the steps of:

- a. storing a plurality of ~~possible~~ medical clinical conclusions;
- b. storing a plurality of medical essential elements;
- c. for each medical clinical conclusion, storing a plurality of membership functions, wherein each membership function associates a [[n]] medical essential element with a medical clinical conclusion;
- d. generating a confidence parameter representing a degree of relationship between an medical element and associated medical clinical conclusion;
- e. [[d.]] storing a plurality of impact parameters, wherein each impact parameter associates a weight of a [[n]] medical essential element pointing toward a medical clinical conclusion;
- f. [[e.]] ~~determining~~ selecting at least one ~~relevant~~ medical essential element from the plurality of medical elements and selecting the associated medical clinical conclusion; [[and,]]
- g. [[f.]] generating a first impact parameter corresponding to the selected medical essential element and the selected medical clinical conclusion;
- h. generating a second impact parameter corresponding to the selected medical clinical conclusion;
- i. generating a first confidence parameter corresponding to the selected medical essential element and the selected medical clinical conclusion;
- j. generating a second confidence parameter corresponding with the selected medical clinical conclusion;
- k. generating an overall confidence parameter for the selected medical clinical conclusion as a ratio of a first product of the first impact parameter and the first confidence parameter to a second product of the second impact parameter and the second confidence parameter, function the at least one relevant medical essential element, the associated membership functions and the impact parameters.

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**Claim 9 (canceled):**

**Claim 10 (withdrawn):** A method for evaluating a medical clinical conclusion comprising the steps of:

- (a) storing at least one medical essential element;
- (b) storing at least one medical rule, wherein each medical rule associates a medical essential element with a clinical conclusion and at least one of a membership confidence function and an impact parameter;
- (c) receiving at least one medical claim item, wherein each medical claim item is associated with a medical essential element and a date parameter;
- (d) sequencing the at least one medical claim item as a function of the associated date parameter;
- (e) segmenting the at least one medical claim item into at least one chronological segment, wherein each chronological segment includes at least one medical claim item and is associated with a clinical significance; and,
- (f) for each chronological segment determining a total membership confidence value with respect to the clinical conclusion based upon the at least one medical rule.

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**Claim 11 (withdrawn):** A method for evaluating a medical clinical conclusion comprising the steps of:

- (a) storing at least one medical essential element;
- (b) storing at least one medical rule, wherein each medical rule associates a medical essential element with a clinical conclusion and at least one of a membership confidence function and an importance parameter;
- (c) parsing at least one medical record, which includes a plurality of phrases, to generate at least one medical claim item, wherein each medical claim item is associated with a medical essential element and a date parameter;
- (d) sequencing the at least one medical claim item as a function of the associated date parameter;
- (e) segmenting the at least one medical claim item into at least one chronological segment, wherein each chronological segment includes at least one medical claim item and is associated with a clinical significance; and,
- (f) for each chronological segment determining a total membership confidence value with respect to the clinical conclusion as a function of at least one medical rule.

**Claim 12 (withdrawn):** The method according to claim 11, wherein step (c) further includes the steps of:

- (i) storing at least one phrase element, wherein each phrase element is associated with a medical essential element; and,
- (ii) for each of the plurality of phrases in the medical record, locating a matching phrase element.

**Claim 13 (withdrawn):** The method according to claim 12, wherein step (e) further includes the steps of:

- (i) storing at least one chronological rule, wherein each chronological rule associates an essential element with a change in a clinical segment; and
- (ii) evaluating the medical essential element associated with each medical claim item using a chronological rule to determine at least one segment point.

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**Claim 14 (withdrawn):** The method according to claim 12, wherein step (f) further includes the steps of:

- (i) based upon the at least one medical rule calculating a sum of membership functions multiplied by an impact parameter with respect to the medical clinical conclusion for each medical item; and,
- (ii) dividing said sum by a sum of an importance parameter associated with each medical item.

**Claim 15 (withdrawn):** A system for evaluating a medical clinical conclusion, comprising:

a database for storing medical essential elements; a database for storing at least one medical rule, wherein each medical rule associates a medical essential element with a clinical conclusion and at least one of a membership confidence parameter and an importance parameter; means for receiving at least one medical record, wherein each medical record includes a plurality of phrases; a processor, wherein the processor is adapted to:

- (a) parse the at least one medical record to generate at least one medical claim item, wherein each medical claim item is associated with a medical essential element and a date parameter;
- (b) sequence the at least one medical claim item as a function of the associated date parameter;
- (c) segment the at least one medical claim item into at least one chronological segment, wherein each chronological segment includes at least one medical claim item and is associated with a clinical significance; and,
- (d) calculate a total membership confidence value with respect to a clinical conclusion as a function of at least one medical rule.

Claims 16-18 (canceled)

**Claim 19 (new)** A method for determining an overall level of confidence for a medical clinical conclusion comprising:

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selecting a medical clinical conclusion from a plurality of medical clinical conclusions;

selecting a first medical element from first medical element information;

generating a first medical element impact parameter corresponding to a first impact of the first medical element on the medical clinical conclusion;

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generating a first medical element confidence parameter corresponding to a first degree of confidence between the first medical element and the medical clinical conclusion;

generating a second impact parameter corresponding to a second impact of the first medical element on the medical clinical conclusion;

generating a second confidence parameter corresponding to a second degree of confidence of the first medical element on the medical clinical conclusion;

generating a first conclusion value as a function of the first medical element confidence parameter and the first medical element impact parameter;

generating a second conclusion value as a function of second confidence parameter and the second impact parameter; and

determining the overall level of confidence for the selected medical conclusion as a ratio of the first conclusion value and the second conclusion value.

**Claim 20 (new)** The method of claim 19, wherein the step of generating the first conclusion value further comprises:

multiplying the first medical element impact parameter by the first medical element confidence parameter, and

wherein the step of generating the second conclusion value further comprises:

multiplying the second impact parameter by the second confidence parameter.

**Claim 21 (new)** The method of claim 19, further comprising the steps of:

storing in a medical knowledge base a plurality of medical elements, medical conclusions, impact parameters and confidence parameters; and

generating the first medical element impact parameter, second impact parameter, first medical element confidence parameter and second confidence parameter for the selected medical element and medical conclusion using the medical knowledge base.

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**Claim 22 (new)** The method of claim 19, wherein the first medical element is a patient medical element and the first conclusion value is function of the patient medical element and the medical clinical conclusion, and

the second conclusion value is an optimum value, normal or best-case value corresponding to the medical clinical conclusion.